

# Work Order ID 114936

**\*114936\***

Page 1

Monday, March 17, 2014 2:32:26 PM

Item ID: 646.3812 Accept **\*N900040100\*** Setup Start **\*NS1\***  
 Revision ID: Stop **\*NS2\***  
 Item Name: Gusset Bracket  
 Start Date: 3/17/14 Start Qty: 10.00 **\*10\*** Cust Item ID:  
 Required Date: 3/17/14 Req'd Qty: 10.00 **\*10\*** Customer:  
 Reference:

Approvals: Process Plan: MLJ Date: 14-03-18 Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start **\*NR1\***  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
<b>Draw Nbr</b>	<b>Revision Nbr</b>								
646.3800	NC								
110	HAAS CNC VERTICAL MACHINING #1	0.00							
<b>*110*</b>									
HAAS 1	Memo	0.00							
HAAS CNC vertical machine #1	1-Machine per DWG DWG REV: <u>N/C</u>								
	2- deburr and break all sharp edges								
120	QC2- Inspect parts off machine FAI/FAIB	0.00							
<b>*120*</b>									
QC	Memo	0.00							
Quality Control									

DAS  
02  
9-89

14-04-12 (10)

DAS  
02  
9-89

14-04-12

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order update only ☐

Work Order: _____  Part No. _____  NCR No. _____	<b>DISPOSITION</b>  Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Suspected Unapproved <input type="checkbox"/>	<b>AGAINST DEPARTMENT/PROCESS</b>  <table style="width: 100%;"> <tr> <td>Skid-tube <input type="checkbox"/></td> <td>Crosstube <input type="checkbox"/></td> <td>Water Jet <input type="checkbox"/></td> <td>Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>	
Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>															
Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>															
Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>															
Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>																

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

**FAULT CATEGORY**

<b>Landing Gear</b> <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric <input type="checkbox"/> Cracks <input type="checkbox"/> Crimp/Kink/Ripple/Wave <input type="checkbox"/> Cuffs <input type="checkbox"/> Crushing <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Marks/Chatter <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	<b>General</b> <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damage/Defect <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drawing <input type="checkbox"/> Drill Holes <input type="checkbox"/> Finish <input type="checkbox"/> Fit/Function	<input type="checkbox"/> Folio/Program <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete/Unqualified <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Misaligned/off center <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Off-set <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence
<input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge		
<input type="checkbox"/> Pressure/Forced Set-up <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other		

# Work Order ID 114936

Monday, March 17, 2014 2:32:26 PM

**\*114936\***

Page 2

Item ID: 646.3812 Accept **\*N900040100\*** Setup Start **\*NS1\***  
Revision ID: Stop **\*NS2\***  
Item Name: Gusset Bracket  
Start Date: 3/17/14 Start Qty: 10.00 **\*10\*** Cust Item ID:  
Required Date: 3/17/14 Req'd Qty: 10.00 **\*10\*** Customer:  
Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start **\*NR1\***  
QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130 <b>*130*</b> QC Quality Control	QC8- Inspect parts - second check  Memo	0.00  0.00	DAS 44 9-89	<del>14/04/14</del> 14/04/14		10	0		
140 <b>*140*</b> Outsource4 Outsource process - Anodize	Outsource process-Anodize per QSI017 4.1.10.1  Memo Issue P/O to ATG : <u>23813</u>  1- Black Anodize as per Dwg 646.3800  2- PRIME AS PER DWG, SEE NOTE #2  Certification of Comformity is required	0.00  0.00							CL 14/04/15 10
150 <b>*150*</b> Packaging Packaging	Receive & Inspect for Damage & Mat'l Certs  Memo	0.00  0.00							10/4/25 10

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

## WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order update only ☐

Work Order: _____  Part No. _____  NCR No. _____	<b>DISPOSITION</b>  Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Suspected Unapproved <input type="checkbox"/>	<b>AGAINST DEPARTMENT/PROCESS</b>  <table style="width:100%;"> <tr> <td>Skid-tube <input type="checkbox"/></td> <td>Crosstube <input type="checkbox"/></td> <td>Water Jet <input type="checkbox"/></td> <td>Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>	
Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>															
Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>															
Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>															
Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>																

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design <input type="checkbox"/>									
Doc/Data <input type="checkbox"/>									
Equip/Tooling <input type="checkbox"/>									
Handling/Pre <input type="checkbox"/>									
Material <input type="checkbox"/>									
Operator <input type="checkbox"/>									
Offset/Setup <input type="checkbox"/>									
Process <input type="checkbox"/>									
Supplier <input type="checkbox"/>									
Training <input type="checkbox"/>									
Transport <input type="checkbox"/>									
Unapproved <input type="checkbox"/>									

### FAULT CATEGORY

<b>Landing Gear</b> <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric <input type="checkbox"/> Cracks <input type="checkbox"/> Crimp/Kink/Ripple/Wave <input type="checkbox"/> Cuffs <input type="checkbox"/> Crushing <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Marks/Chatter <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	<b>General</b> <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damage/Defect <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drawing <input type="checkbox"/> Drill Holes <input type="checkbox"/> Finish <input type="checkbox"/> Fit/Function	<input type="checkbox"/> Folio/Program <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete/Unqualified <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Misaligned/off center <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Off-set <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence
		<input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge
		<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Set-up <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other

**Work Order ID 114936**

Monday, March 17, 2014 2:32:26 PM

**\*114936\***

Page 3

Item ID: 646.3812

Accept

**\*N900040100\***Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: Gusset Bracket

Start Date: 3/17/14 Start Qty: 10.00

**\*10\***

Cust Item ID:

Required Date: 3/17/14 Req'd Qty: 10.00

**\*10\***

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start **\*NR1\***

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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155

QC5- Inspect part completeness to step on W/O

0.00

**\*155\***

QC

Memo

0.00

Quality Control

180

Identify as per dwg & Stock Location: 8T535 0.00**\*180\***

Packaging

Memo

0.00

Packaging

\*\*\*IDENTIFY AS PER APICAL MPP-120 BY STAMPING P# AND REV\*\*\*

190

QC21- Final Inspection - Work Order Release

0.00

**\*190\***

QC

Memo

0.00

Quality Control

DAS  
26  
9-8914/4/30  
14-04-29

DQA: \_\_\_\_\_ Date: \_\_\_\_\_



## WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order update only ☐

Work Order: _____  Part No. _____  NCR No. _____	<b>DISPOSITION</b>  Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Suspected Unapproved <input type="checkbox"/>	<b>AGAINST DEPARTMENT/PROCESS</b>  <table style="width:100%;"> <tr> <td>Skid-tube <input type="checkbox"/></td> <td>Crosstube <input type="checkbox"/></td> <td>Water Jet <input type="checkbox"/></td> <td>Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>	
Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>															
Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>															
Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>															
Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>																

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
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Doc/Data <input type="checkbox"/>									
Equip/Tooling <input type="checkbox"/>									
Handling/Pre <input type="checkbox"/>									
Material <input type="checkbox"/>									
Operator <input type="checkbox"/>									
Offset/Setup <input type="checkbox"/>									
Process <input type="checkbox"/>									
Supplier <input type="checkbox"/>									
Training <input type="checkbox"/>									
Transport <input type="checkbox"/>									
Unapproved <input type="checkbox"/>									

### FAULT CATEGORY

<b>Landing Gear</b> <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric <input type="checkbox"/> Cracks <input type="checkbox"/> Crimp/Kink/Ripple/Wave <input type="checkbox"/> Cuffs <input type="checkbox"/> Crushing <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Marks/Chatter <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	<b>General</b> <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damage/Defect <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drawing <input type="checkbox"/> Drill Holes <input type="checkbox"/> Finish <input type="checkbox"/> Fit/Function	<input type="checkbox"/> Folio/Program <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete/Unqualified <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Misaligned/off center <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Off-set <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence	<input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge  <input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Set-up <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other
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# Picklist Print

Monday, March 17, 2014 2:32:26 PM

Page 1

Work Order ID: 114936

\*114936\*

Parent Item: 646.3812

\*646.3812\*

Parent Item Name: Gusset Bracket

Start Date: 3/17/14

Required Date: 3/17/14

Start Qty: 10.00

Required Qty: 10.00

Comments: IPP REV:A NEW ISSUE 12-10-22 JLM VERIFIED:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M7075T6A0.75X0.75X 0.060X0.062		Purchased	No				f	75.0000		1			
<b>*M7075T6A0 75X0 75X0 060X0</b>									<b>**</b>	<b>DAS 02 9-89</b>	<b>1404.12</b>		
7075T6 ANGLE .75" X .75" X .060" X .062"W													

Location

Loc Qty

Loc Code

MAT036

75

123947

75

**71.5**

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

## WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order update only ☐

Work Order: _____  Part No. _____  NCR No. _____	<b>DISPOSITION</b>  Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Suspected Unapproved <input type="checkbox"/>	<b>AGAINST DEPARTMENT/PROCESS</b>  <table style="width: 100%;"> <tr> <td>Skid-tube <input type="checkbox"/></td> <td>Crosstube <input type="checkbox"/></td> <td>Water Jet <input type="checkbox"/></td> <td>Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>	
Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>															
Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>															
Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>															
Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>																

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

### FAULT CATEGORY

Landing Gear	General	Other	Other
<input type="checkbox"/> Bending	<input type="checkbox"/> Bend	<input type="checkbox"/> Folio/Program	<input type="checkbox"/> Outside Dimensions
<input type="checkbox"/> Centre Not Concentric	<input type="checkbox"/> BOM/Route	<input type="checkbox"/> Grain	<input type="checkbox"/> Over/Under tolerance
<input type="checkbox"/> Cracks	<input type="checkbox"/> Broken/Damage/Defect	<input type="checkbox"/> Hardware	<input type="checkbox"/> Part Incorrect
<input type="checkbox"/> Crimp/Kink/Ripple/Wave	<input type="checkbox"/> Burrs	<input type="checkbox"/> Inspection Incomplete/Unqualified	<input type="checkbox"/> Part Lost/Missing
<input type="checkbox"/> Cuffs	<input type="checkbox"/> Contamination	<input type="checkbox"/> Instructions Incomplete/Unclear	<input type="checkbox"/> Part Moved
<input type="checkbox"/> Crushing	<input type="checkbox"/> Countersink	<input type="checkbox"/> Misaligned/off center	<input type="checkbox"/> Positioned Wrong
<input type="checkbox"/> Heat Treat	<input type="checkbox"/> Cut Too Short	<input type="checkbox"/> Mislabeled	<input type="checkbox"/> Power Loss/Surge
<input type="checkbox"/> Inspection Strip in Tube	<input type="checkbox"/> Drawing	<input type="checkbox"/> Misread	<input type="checkbox"/> Pressure/Forced
<input type="checkbox"/> Marks/Chatter	<input type="checkbox"/> Drill Holes	<input type="checkbox"/> Off-set	<input type="checkbox"/> Set-up
<input type="checkbox"/> Turning Sequence	<input type="checkbox"/> Finish	<input type="checkbox"/> Out of Calibration	<input type="checkbox"/> Temperature/Cure
<input type="checkbox"/> Wave/Twist in Tube	<input type="checkbox"/> Fit/Function	<input type="checkbox"/> Out of Sequence	<input type="checkbox"/> Weld
			<input type="checkbox"/> Wrong Stock Pulled
			<input type="checkbox"/> Other





APICAL INDUSTRIES, INC.	ENGINEERING CHANGE NOTICE NO. 03697				SHEET 1 OF 1	
	DWG NO. 646.3800	REV: N/C	PREPARED BY B. PETERS	DATE: 11/14/12	EFFECT ON DWG <input type="checkbox"/> INC. <input checked="" type="checkbox"/> UNINC.	
	DWG TITLE: BRACKETS					
	APPROVED BY: ENGR <i>[Signature]</i>	MFG <i>[Signature]</i>	QC <i>[Signature]</i>	EFF: NEXT ORDER		
TRANSACTION CODES (TC) A-ADD C-CREATE R-REVISE D-DELETE	REASON: ADDED ALTERNATE MATERIAL.				ECR: D-12-006	

IS

1 PRIMARY MATERIAL: 7075-T651 ALUMINUM PER AMS-QQ-A-250/12.  
ALTERNATE MATERIAL: 7075-T6511 ALUMINUM PER AMS-QQ-A-200/11.

**SHEET 1, ZONE A2 IS:**

114936 MLC  
140318

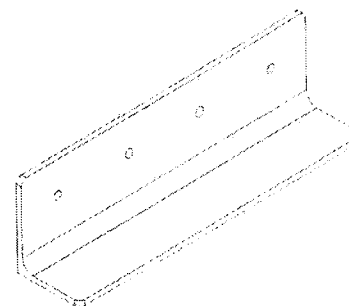
F/N	TC	PART NUMBER	QTY	DESCRIPTION	MATERIAL	SPECIFICATION
DOCUMENTS EFFECTED:					CHANGE CATEGORY	DER REVIEW REQUIRED
<input type="checkbox"/> RFMS <input type="checkbox"/> MDL <input type="checkbox"/> INSTALL INSTRU <input type="checkbox"/> ICA <input type="checkbox"/> BOM					<input type="checkbox"/> MAJOR <input checked="" type="checkbox"/> MINOR	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF APICAL INDUSTRIES ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF APICAL INDUSTRIES IS PROHIBITED.

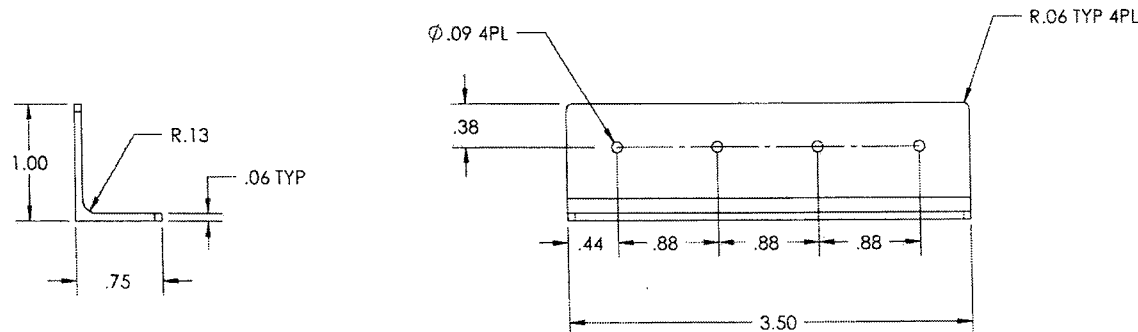
REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED

# NOTES:

- 1 MATERIAL: ALUMINUM 7075-T651 AMS-QQ-A-250/12
- 2 FINISH: HARD ANODIZE IAW MIL-A-8625 TYPE III, CLASS 2, COLOR BLACK;  
CARDINAL 4860-50 PRETREATMENT PRIMER  
PRIME IAW MIL-P-23377J TYPE I CLASS N
3. DEBURR AND BREAK ALL SHARP EDGES
4. IDENTIFY IAW MPP-120



646.3810



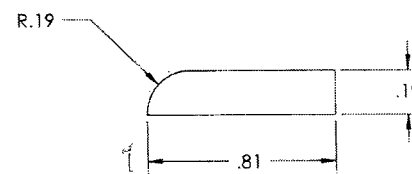
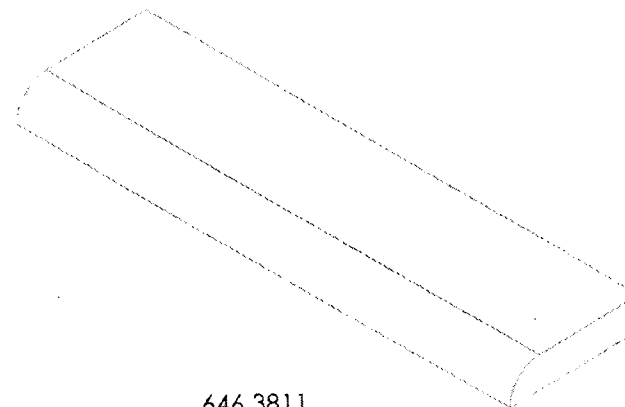
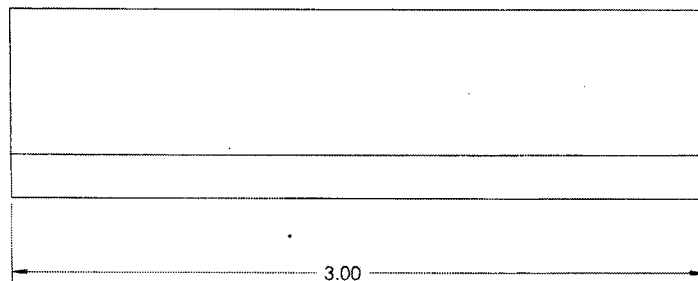
UNINCORPORATED ECU(S)

03697

		646.3814	WIPER BRACKET	▲	▲
		646.3813	STRUT BRACKET	▲	▲
		646.3812	GUSSET BRACKET	▲	▲
		646.3811	RADIUS BLOCK	▲	▲
		646.3810	BRACKET	▲	▲
	QTY	FIND #	PART #	DESCRIPTION	MAT'L SPEC.
PARTS LIST					
NEXT ASSY (S)			APICAL INDUSTRIES		
646.4000			2608 TEMPLE HEIGHTS DR OCEANSIDE, CA. 92056-3512 (760)724-5300		
ORIGINAL DATE: 08-19-05 DRAWN BY: CHICOT 1 CHOPPER 1 P. BRVD DRAWING APPROVAL: P. BRVD ELECTRICAL: NO			646.3800 BRACKETS		
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 1 PLACE DECIMALS .100 2 PLACE DECIMALS .005 ANGLES .1°			SIZE 12AGE CODE DWG. NO. B 07M26 646.3800		
SCALE: NONE			SHEET 1 OF 5		

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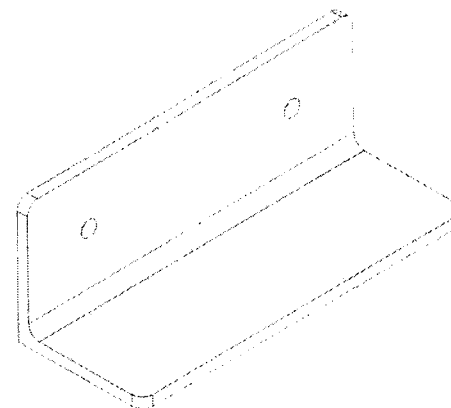
REVISION			
REV.	DESCRIPTION	DATE	APPROVED



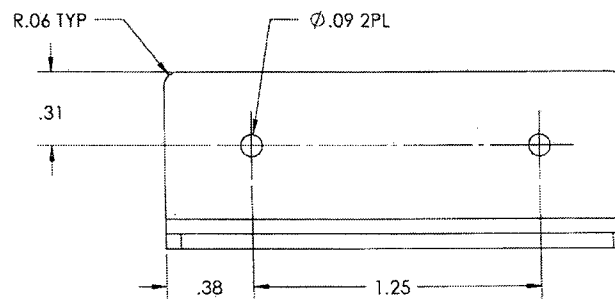
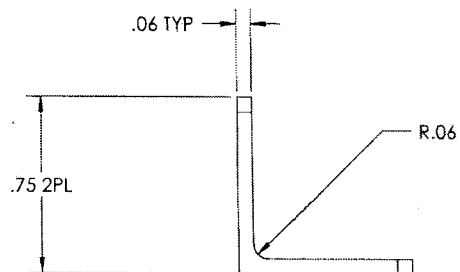
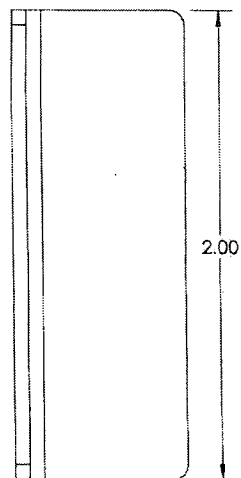
NEXT ASSY (S)		ORIGINAL DATE 08-19-06		<b>APICAL INDUSTRIES</b> 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300	
		DESIGNED BY	CHECKED		
		DESIGNED BY			
		DESIGNED BY			
		CONTRACT NO.		<b>BRACKETS</b>	
		UNLESS OTHERWISE SPECIFIED		SEE CASE CODE	DWG. NO.
		DIMENSIONS ARE IN INCHES		B	07M26
		TOLERANCES ARE:			
		FRACTIONS DECIMALS ±.010			
		ANGLES ±.5°			
SCALE NONE				SHEET 2 OF 3	

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REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



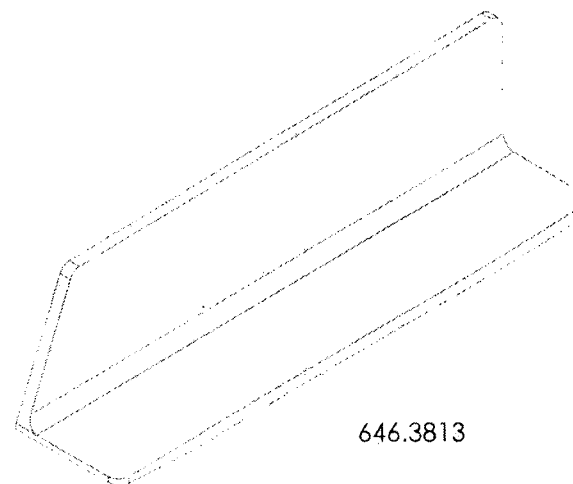
646.3812



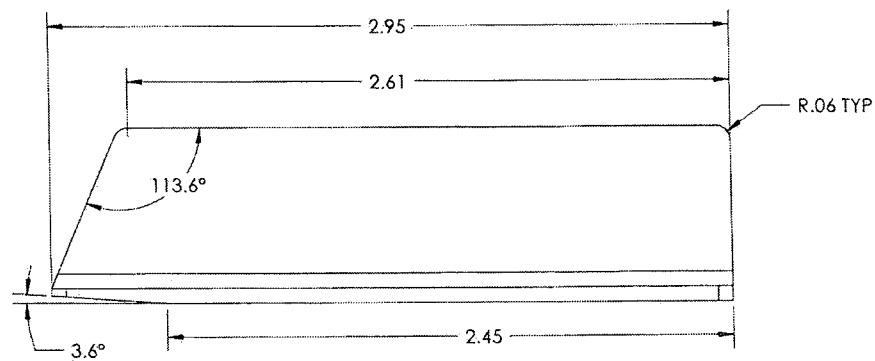
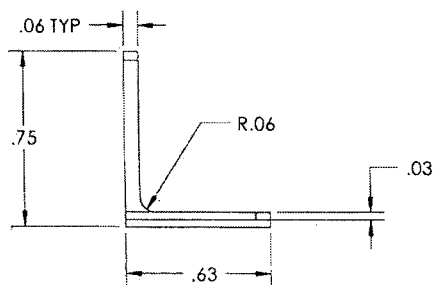
NEXT ASSY (S)		ORIGINAL DATE 08-19-08	<b>APICAL INDUSTRIES</b> 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92036-3512 (760) 724-5300	
		DRAWN BY J. GARDNER		
		CHECKED BY 		
		DRAWING APPROVAL 	CONTRACT NO. 	
		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 1 PLACE DECIMALS ± .010 2 PLACE DECIMALS ± .005 ANGLES ± .5°	MT B	CAGI CODE 070216 DWG NO 646.3800 SCALE NONE
			REV N/C	SHEET 3 OF 3

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REVISIONS		
REV	DESCRIPTION	DATE



646.3813



NEXT ASSY (S)		ORIGINAL DATE (DATE TYP)	05-19-08
DRAWN BY		CHECKED	
J. GARDNER		SPAWING APPROVAL	
C. GARDNER #10			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.010 3 PLACE DECIMALS ±.005 ANGLES ±.5°		DATE B 07/12/6	DWG. NO. 646.3800
SCALE: NONE		SHEET 4 OF 5	

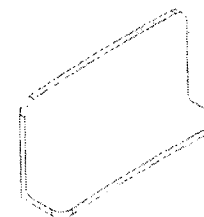
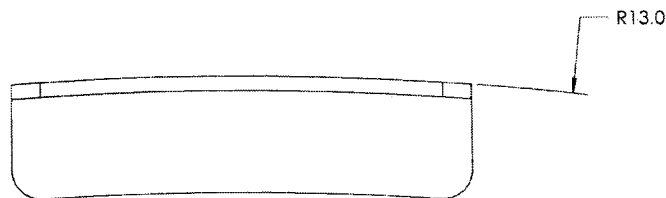
APICAL INDUSTRIES  
2608 TEMPLE HEIGHTS DR.  
OCEANSIDE, CA. 92056-3512 (760)724-5300

BRACKETS

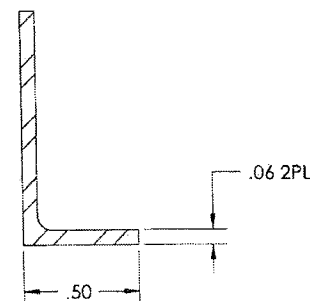
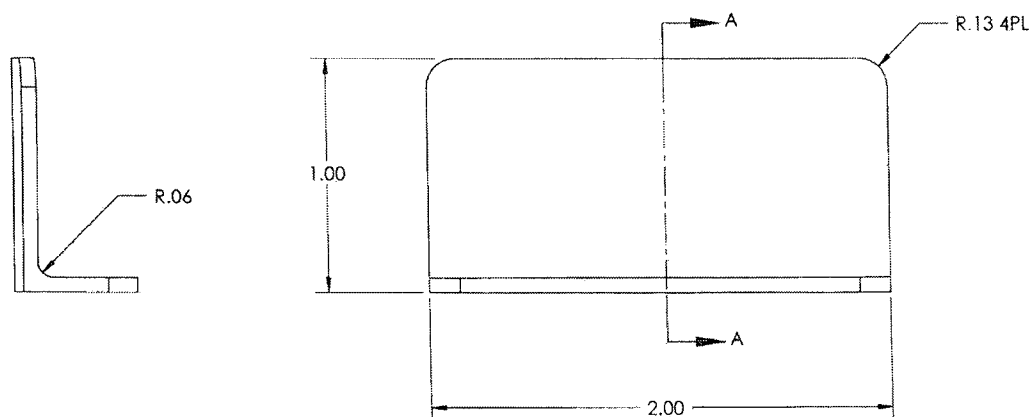
646.3800 N/C

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REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



646.3814



SECTION A-A

NEXT ASSY IS:	ORIGINAL DATE	08-19-08	<b>APICAL INDUSTRIES</b> 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5900 <b>BRACKETS</b>	
	DESIGNED BY	RECEIVED		
	DRAWN BY	1-CAD/PLP		
	APPROVED BY			
	CONTRACT NO.		SHEET CODE: DNG. NO. <b>646.3800</b> REV. <b>N/C</b> SCALE: NONE SHEET: 5 OF 3	
	UNLESS OTHERWISE SPECIFIED			
	DIMENSIONS ARE IN INCHES			
	TOLERANCES ARE:			
	2 PLACES DECIMAL: .010			
	3 PLACES DECIMAL: .005			
	ANGLES: .5°			



Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
Tel: 613 632 9577  
Fax: 613 632 1053

## PURCHASE ORDER

Purchase Order ID **PO23813**

Purchase Order Date 4/15/2014

PO Print Date 4/25/2014

Page Number 2 of 6

**Order From :**

VC-ATG001

**Ship To :** DART AEROSPACE LTD

A.T.G. INDUSTRIES INC.  
731 INDUSTRIELLE ROAD  
ROCKLAND, ON K4K 1T2  
CANADA

1270 ABERDEEN  
HAWKESBURY, ON K6A 1K7  
CANADA

**Contact Name**

**Vendor Phone** 613-446-4544

**Ship To Contact**

**Ship To Phone**

**Ship Via:** VENDOR'S TRUCK

**Ship Acct:**

**Buyer**

**Customer POID**

**Customer Tax #** 10127-2607

**Terms** Net 30

**Currency** CAD

**FOB** FCA - (Free Carrier)

**Line Total:** \$32.75

4	114936	646.3812 GUSSET BRACKET	5/7/2014	10.00	\$6.10	✓	\$61.00
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Yes

5/7/2014

FINISH: HARD BLACK ANODIZE AS PER IAW MIL-A-8625 TYPE III, CLASS 2 / PRIME AS PER IAW MIL-P-23377J TYPE 1 CLASS N

**Line Total:** \$61.00

5	112932	646.3813 STRUT BRACKET	5/7/2014	6.00	\$6.10	✓	\$36.60
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Yes

5/7/2014

FINISH: HARD BLACK ANODIZE AS PER IAW MIL-A-8625 TYPE III, CLASS 2 / PRIME AS PER IAW MIL-P-23377J TYPE 1 CLASS N

**Line Total:** \$36.60

6	115021	646.3813 STRUT BRACKET	5/7/2014	10.00	\$6.10	✓	\$61.00
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Yes

5/7/2014

FINISH: HARD BLACK ANODIZE AS PER IAW MIL-A-8625 TYPE III, CLASS 2 / PRIME AS PER IAW MIL-P-23377J TYPE 1 CLASS N

**Note:**

4/25/2014





A.T.G. Industries Inc.  
731, rue Industrielle Rd.  
PLATING DEPARTMENT  
Rockland, On K4K 1T2  
Canada  
Ph: (613) 446-4544  
Fax: (613) 446-4556

### Pack List

Number: 63000

Date: 24-Apr-14

#### To

DART AEROSPACE LTD  
1270 ABERDEEN ST.  
HAWKESBURY, ON K6A 1K7  
Canada

#### Ship To


DART AEROSPACE LTD  
1270 ABERDEEN ST.  
HAWKESBURY, ON K6A 1K7  
Canada

Ph: 613-632-5200

Fax: 613-632-1185

Ph: 613-632-5200

Fax: 613-632-1185

Terms		Ship Via	
Quantity	Description		
1 lot	Part: ASST  20 PCS 646.3313 (13.10) 11 PCS 646.3810 (6.55) 10 PCS 646.3812 (6.10) 16 PCS 646.3813 (6.10) 12 PCS 646.9811 (32.60) 10 PCS 646.9812 (18.15) 4 PCS 647.9410 (10.70) 8 PCS 647.9411 (24.50)  HARD ANODIZE BLACK MIL-A-8625 TYPE III CLASS 2  PRIME MIL-P-23377J TYPE I CLASS N  3 PCS D2224 (2.00) RED ANODIZE MIL-A-8625 TYPE II CLASS 2  PRICE IS PER PIECE Job: 20140236	Rev:	PO: 23813 Line:
<p align="center">Certificate of Conformance</p> <p>A.T.G. Industries certifies that all items in this shipment are in conformance with all requirements, specifications and drawings referenced in the purchase order.</p> <p align="center">ISO 9001 : 2008 REGISTERED ATG SALES-2010 TERMS APPLY</p> <p>DATE: <u>24/4/14</u></p> <p>CERTIFIED SIGNATURE: <u></u></p> <p>RECEIVER SIGNATURE: _____</p>			